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15TH OCTOBER 2022

The Geological era that we live in is called the anthropocene. This is because of the global impact that humans and their activities have made after they evolved. A notable effect of changes seen in the anthropocene has been a rapid increase in the rate of extinction of other species. However, skeptics of climate change keep pointing to the large discrepancies in the extinction rates published bу researchers. The online magazine, Yale Environment 360, has reported a range of 24 to 150 species lost per day. Either of these numbers is alarming. A total of about 1,000 species of animals have been actually documented to have gone extinct in the last 400 years.

"In 12 months, it would be possible to have a labgrown meat burger," said Sandeep Sharma, a scientist who's spent over two decades in India's leading vaccine companies and now the CEO and cofounder of Neat Meatt. It is among the handful of Indian companies that are employing advances in cell biology and protein synthesis to solve a global challenge: how to ensure that a rising world population gets better, cheaper protein from fewer animals and diminishing cultivable land.

ISRO's heaviest rocket LVM3 will launch British startup OneWeb's 36 broadband satellites from the spaceport in Andhra Pradesh's Sriharikota on October 23, marking the launcher's entry into the global commercial launch service market. LVM3 was earlier called GSLV Mk III.

The amazing survival strategies of polar marine creatures might help to explain how the first animals on Earth could have evolved earlier than the oldest fossils suggest, according to new research. These first, simple and now extinct animals might have lived through some of the most extreme, cold and icy periods the world has ever seen (Global Change Biology). The fossil record places the earliest animal life on Earth at 572-602 million years ago, just as the world came out of a huge ice age, whilst molecular studies suggest an earlier origin, up to 850 million years ago. If correct, this means that animals must have survived during a time influenced by multiple global ice ages, when the whole or large parts of the planet were encased in ice, far bigger than any seen since.

Miniature human brain like structures transplanted into rats can send signals and respond to

INDIA OPPOSES GROUP CONSULTATION ON FOOD SUBSIDIES PROGRAMME AT WTO

- 1. Group consultation format instead of a bilateral format was proposed by a 10-member group of developed and developing countries including US, Australia, Canada, Brazil, Thailand etc. No such format on consultation was given under Bali Ministerial meeting (2013) as the group includes developed and developing countries as well as food importing and food exporting countries.
- **2.**Under WTO rules, Trade-distorting domestic support (aggregate measurement of support or AMS, sometimes called Amber Box support) is subjected to de minimis limits. De minimis is minimal amounts of domestic support that are allowed even though they distort trade. (refer infographics).
- **3.**Some public stockholding programmes (PSHP) are considered to distort trade when they involve purchases from farmers at prices fixed by governments, known as supported or administered prices (MSP in India). PSHP are used for food security purposes to purchase, stockpile and distribute food to people in need.
- **4.**To overcome this, WTO members, at Bali ministerial meeting, put in place a peace clause that said that no country would be legally barred from food security programmes even if the subsidy breached the de minimis limits. Peace clause is an interim solution, until a permanent solution was found.

NO GOVERNMENT BENEFITS OR GOVERNMENT JOBS FOR THOSE WITH MORE THAN 4 KIDS:MANIPUR

- **1.**Aiming apparently at population control, decision was taken along with establishing the Manipur State Population Commission. Several other states such as Rajasthan, Madhya Pradesh, Gujarat etc have similar laws aimed at controlling population.
- **2.**At present, India hosts around 18% of world's population with only 2.45% of the global surface area and in 2023 will overtake China to become world's most populous nation.

2ND UN WORLD GEOSPATIAL INFORMATION CONGRESS (UNWGIC 2022) HELD

- **1.**It was hosted by Department of Science & Technology (DST) and convened by United Nations Committee of Experts on Global Geospatial Information Management (GIM). Convening of UNWGIC arises out of mandate from UN Economic and Social Council (ECOSOC) to promote dialogue on global GIM.
- **2.**India's geospatial economy is expected to cross Rs 63,000 crore by 2025 and will provide employment to more than 10 lakh people. Geospatial Technology is an emerging field of study that includes Geographic Information System (GIS), Remote Sensing (RS), and Global Positioning System (GPS). It enables us to acquire data that is referenced to earth and use it for analysis, modeling, simulations, and visualization.
- 3.Applications: Agriculture planning, heavy civil construction, building design, transportation and logistics, mapping of epidemics outbreaks etc. UNWGIC 2022 also discussed about Integrated Geospatial Information Framework (IGIF) that provides a guide for developing, integrating, strengthening and maximizing GIM and related resources in all countries.
- **4.**It focuses on location information that is integrated with any other meaningful data to solve societal and environmental problems. Three main components of IGIF: Overarching strategies, implementation guide, and country level action plan.

"GLOBAL STATUS OF MULTI-HAZARD EARLY WARNING SYSTEMS (MHEWS) - TARGET G" REPORT RELEASED

- **1.**Joint report by United Nations Disaster Risk Reduction and World Meteorological Organisation assesses current global status of MHEWS against Target G (one of the seven targets) of Sendai Framework. Sendai Framework is a global blueprint for disaster risk reduction and prevention.
- 2. Target-G aims to increase availability of and access to MHEWS

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15[™] OCTOBER 2022

environmental cues. Researchers grew the structures from human stem cells and then injected them into the brains of new born rat pups. After six months, the organoids became fully integrated into the rat brains. The approach could lead to a way to test therapies for human brain disorders. But there are some ethical concerns — creating rodent-human hybrids could harm the animals.

Record rains this summer put one-third of Pakistan underwater, killing around 1,300 people and causing widespread devastation that has affected 33 million people. The disaster has highlighted the question of whether rich countries should provide funding to address the loss and damage inflicted by climate change on the people who have contributed least to emissions — a key issue at the next United Nations climate conference, COP27, in November.

Ancient Mars might have been capable of nurturing hydrogeneating, producing methane microbes. Although similar creatures helped to make the environment on Earth more conducive to life, they would have done the opposite on Mars. Computer models show that Martian methane produced by microbial life would have cooled the planet and made it uninhabitable. These simple life forms would have the altered atmosphere profoundly that they triggered a Martian Ice Age and snuffed themselves out.

In India, people speak many different languages, yet the medium of higher education is mainly English. It would be a grand feat if quality lectures available in English could be transcreated into various Indian languages. This idea first occurred to Prof. Rajeev Sangal of Institute of Information Technology (IIIT) Hyderabad, who in discussion with then Principal Scientific Advisor to the Prime Minister Prof. Vijay Raghavan, initiated the process. This project aims to transcreate about 40,000 videos of lectures from the NPTEL and SWAYAM programmes into five Indian languages at first and then into 13. The pilot project spiralled out from IIIT Hyderabad, with Indian Institute of Technology (IIT) Madras and IIT Bombay as partners.

Sleuths of multiple government agencies on Saturday seized 138

and disaster risk information and assessments by 2030. Early warning systems (EWS) reduce harm to people and damage to assets ahead of impending hazards, including storms, tsunamis etc.

- **3.**Four elements of EWS: Risk knowledge; Technical monitoring and warning service; Communication and dissemination of warnings; Community response capability. MHEWS addresses several hazards that may occur alone, simultaneously, or cascadingly.
- **4.**Key Highlights of report Increasing frequency and intensity of extreme weather events/disasters due to human-induced climate change and unpredictable weather events. Half of the countries globally are not protected by MHEWS. 3.6 billion people live in areas highly vulnerable to climate change and related disasters.
- **5.**Recommendations to achieve Target G Investing in all elements of EWS, especially in risk knowledge for 5.better planning and capacity building. Investing in enhanced data and better access to technology for stronger monitoring, faster communication etc.
- 6.Initiatives taken in India Geological Survey of India has developed a prototype regional Landslide Early Warning System (LEWS). Indian National Centre for Ocean Information Services (INCOIS) has set up Storm Surge EWS and Indian Tsunami Early Warning Centre (ITEWC). Defence Geo-Informatics Research Establishment provides advance warning of avalanches.
- **7.**Global Initiatives Global Basic Observing Network (GBON) to generate and exchange basic weather and climate data. Climate Risk and Early Warning Systems (CREWS) for people living in the LDCs and SIDS. Risk-informed Early Action Partnership (REAP) to enhance collaboration.

FOREIGN UNIVERSITIES ROPED IN TO GIVE LESSONS ON EMPLOYABILITY SKILLS

- **1.**Move from National Skills Development Corporation (NSDC) under Skills India Mission includes foreign universities like Harvard Business School, MIT etc. with an aim to: Impart employability skills of international standards to cater to high demand for skilled professionals across the globe. Building strong skilled workforce by enabling candidates from small towns to benefit from international employability programmes at subsidized rates.
- **2.**Attract capital inflows as big MNCs look at setting up base here under China-plus-one strategy, a strategy in which companies avoid investing only in China and diversify their businesses to alternative destinations. In 2020, Indian companies had identified skill gaps as their greatest barrier, representing 34% of the challenges they experienced. In 2022, this has risen to 60%. Also, India Skills Report 2022 highlighted issues like Only 46.2% of India's youth is highly employable. Lack of awareness about current job roles and requirements among youth etc.
- **3.**Youth-focused skill development initiatives Through NSDC: PM Kaushal Vikas Yojana, PM Kaushal Kendras, India International Skill Centres etc. Through Directorate General of Training: Craftsmen Training Scheme, Apprenticeship training, Scheme for up-gradation of IITs etc. Others: Skill loan scheme, Indian Institute of Skills etc.

INDIA RANKS 107TH OUT OF 121 COUNTRIES ON GLOBAL HUNGER INDEX (GHI) 2022

- **1.**GHI is used to measure and track hunger at global, regional, and national levels. It uses four parameters to determine its score (see infographic). GHI is published by Concern Worldwide (international humanitarian organization) and Welthungerhilfe (private aid organisation in Germany).
- **2.**Key Global Findings Global progress against hunger has largely stagnated and is likely to worsen due to overlapping global crises—conflict, climate change, and economic fallout of COVID-19 pandemic. Africa South of Sahara and South Asia have highest hunger levels and are most vulnerable to future shocks and crises. As many as 828 million people were undernourished in 2021.
- 3. Findings related to India With a score of 29.1, India has a level of hunger that is serious. Ranked behind all South Asian countries except Afghanistan. Child wasting (low

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exotic wild mammals, reptiles and birds from Champhai district in Mizoram bordering Myanmar. This is the largest haul of such trafficked animals in the last few years. An official in State capital Aizawl said a joint team of the Champhai district police, Excise and Narcotics departments seized the animals from three SUVs intercepted on a highway leading to southern Assam.

The average annual growth of medical colleges in India from 2011-12 to 202122 stands at 5.9% — the highest in the last five decades, shows data from the Health Ministry. According to the data, Tamil Nadu and Uttar Pradesh (in 2021 22) have the highest share of both public and private undergraduate (UG) medical colleges followed by Karnataka and Maharashtra.

weight for height) rate is highest for any country in the world. Prevalence of undernourishment has also risen. Shown improvement in child stunting (low height for age) and child mortality indicators. Government of India had last year stated that methodology used for GHI was unscientific.